



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/897,414	07/03/2001	Julian Satran	SATRAN-1	8319
1444	7590	12/14/2004	EXAMINER	
BROWDY AND NEIMARK, P.L.L.C. 624 NINTH STREET, NW SUITE 300 WASHINGTON, DC 20001-5303			LUU, LE HIEN	
			ART UNIT	PAPER NUMBER
			2141	

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/897,414

Applicant(s)

SATRAN ET AL.

Examiner

Le H Luu

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/03/01 - 10/18/01.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/04/01</u> . | 6) <input type="checkbox"/> Other: _____ |

1. Claims 1-14 are presented for examination.
2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-14 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Cheriton et al. (Cheriton) patent no. 6,675,200, in view of Grun patent no. 6,272,591.

4. As to claim 7, Cheriton teaches the invention substantially as claimed, including a reading device including a controller coupled to a RDMA engine each adapted to receive data packets associated with a transaction on a respective communication channel and each being responsive to receiving on the respective communication channel a final packet associated with the transaction for: (a) generating an interrupt, and (b) reporting to the controller an amount of data received on the respective communication channel (col. 3 lines 4-10; col. 3 line 48 - col. 4 line 35; col. 7 line 64 - col. 8 line 32).

However, Cheriton does not explicitly teach a plurality of RDMA engines.

Grun teaches using multiple virtual channels each with a RDMA in accordance with Virtual Interface Architecture Specification for data transfer (col. 2 line 25 - col. 3 line 60).

It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to combine the teachings of Cheriton and Grun to provide plurality of RDMA engines because it would provide high bandwidth message-passing between interconnected nodes.

5. As to claims 8-9, Cheriton and Grun teaches the controller is responsive to said interrupt for computing a cumulative amount of data received by all RDMA engines that have generated respective interrupts, and the controller is responsive to all data having been received for completing processing associated with the transaction (Cheriton, col. 3 lines 4-10; col. 3 line 48 - col. 4 line 35; col. 7 line 64 - col. 8 line 32; Grun, col. 2 line 25 - col. 3 line 60).

6. Claims 1-6 and 10-14 have similar limitations as claims 7-9; therefore, they are rejected under the same rationale. In addition, Grun teaches splitting data block into N packets (col. 3 lines 34-60).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Le H Luu whose telephone number is 571-272-3884. The examiner can normally be reached on 7:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2141

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Le Hien Luu', with a long horizontal line extending from the end of the signature.

LE HIEN LUU
PRIMARY EXAMINER

December 02, 2004